

## Section 1732

Clearly label each OTDR trace identifying a starting and ending point for all fibers being tested. Record the attenuation level of each fiber and clearly indicate OTDR trace results in report format. Furnish 2 hard copies of each of the OTDR trace results and electronic copies of all trace results along with digital photographs showing workmanship for each splice on a compact disk. Furnish the manufacturer's make, model number and software version of the OTDR used for testing.

Furnish to the Engineer 2 copies of the software needed to view the OTDR traces electronically.

### 1731-4 MEASUREMENT AND PAYMENT

*Interconnect Center* will be measured and paid as the actual number of fiber-optic interconnect centers furnished, installed and accepted.

*Splice Enclosure* will be measured and paid as the actual number of fiber-optic splice enclosures furnished, installed and accepted. No measurement will be made between aerial, underground, manhole or junction box installation of the fiber-optic splice enclosure.

*Modifying Splice Enclosure* will be measured and paid as the actual number of fiber-optic splice enclosures modified and accepted. No measurement will be made between aerial, underground, manhole or junction box installation of the fiber-optic splice enclosure.

No measurement will be made of splice trays, pigtails, jumpers, connector panels, testing and any corrective actions, repairs and replacements needed for exceeding maximum allowable attenuation or other defects, as these will be incidental to furnishing and installing fiber-optic interconnect centers and splice enclosures and modifying splice enclosures.

Payment will be made under:

Pay Item	Pay Unit
Interconnect Center	Each
Splice Enclosure	Each
Modifying Splice Enclosure	Each

## SECTION 1732 FIBER-OPTIC TRANSCEIVERS

### 1732-1 DESCRIPTION

Furnish and install fiber-optic transceivers with all necessary hardware.

### 1732-2 MATERIALS

Refer to Division 10.

Item	Section
Fiber-Optic Transceivers	1098-12

Furnish material, equipment and hardware under this section that is pre-approved on the ITS and Signals QPL.

### 1732-3 CONSTRUCTION METHODS

Install fiber-optic transceivers in each equipment cabinet and comply with manufacturer's installation instructions.

### 1732-4 MEASUREMENT AND PAYMENT

*Fiber-Optic Transceiver - Drop and Repeat* will be measured and paid as the actual number of fiber-optic drop and repeat transceivers furnished, installed and accepted.

*Fiber-Optic Transceiver - Self-Healing Ring* will be measured and paid as the actual number of fiber-optic self-healing ring transceivers furnished, installed and accepted.

1 Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Fiber-Optic Transceiver - Drop and Repeat	Each
Fiber-Optic Transceiver - Self-Healing Ring	Each

2 **SECTION 1733**  
3 **DELINEATOR MARKERS**

4 **1733-1 DESCRIPTION**

5 Furnish and install delineator markers with all necessary hardware.

6 **1733-2 MATERIAL**

7 Refer to Division 10.

<b>Item</b>	<b>Section</b>
Delineator Markers	1098-13

8 Furnish material, equipment and hardware under this section that is pre-approved on the  
9 ITS and Signals QPL.

10 **1733-3 CONSTRUCTION METHODS**

11 Submit sample of proposed delineator markers for approval before installation.

12 Install delineator markers using a method that firmly and securely anchors delineator marker  
13 in the ground to prohibit twisting and easy removal.

14 **1733-4 MEASUREMENT AND PAYMENT**

15 *Delineator Marker* will be measured and paid as the actual number delineator markers  
16 furnished, installed and accepted.

17 Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Delineator Marker	Each

18 **SECTION 1734**  
19 **REMOVE EXISTING COMMUNICATIONS CABLE**

20 **1734-1 DESCRIPTION**

21 Remove existing communications cable.

22 **1734-2 CONSTRUCTION METHODS**

23 Removal of existing aerial communications cable also includes proper disposal of  
24 communications cable, messenger cable and mounting hardware, including abandoned risers.

25 Removal of existing underground communications cable includes proper disposal of  
26 communications cable and junction boxes, if required. Where junction boxes have been  
27 removed, backfill hole to 95% of surrounding density.

28 Do not reuse any removed communications cable, messenger cable, junction boxes, pole  
29 attachment hardware or abandoned risers on the project, unless otherwise specified. In the  
30 event that any of the removed communications cable, junction boxes or pole attachment  
31 hardware is to be returned to the Engineer, it will be so noted in the plans.